

# V. C. SUMMMER NUCLEAR STATION

## Alpha Hot Leg Evaluation and Repair

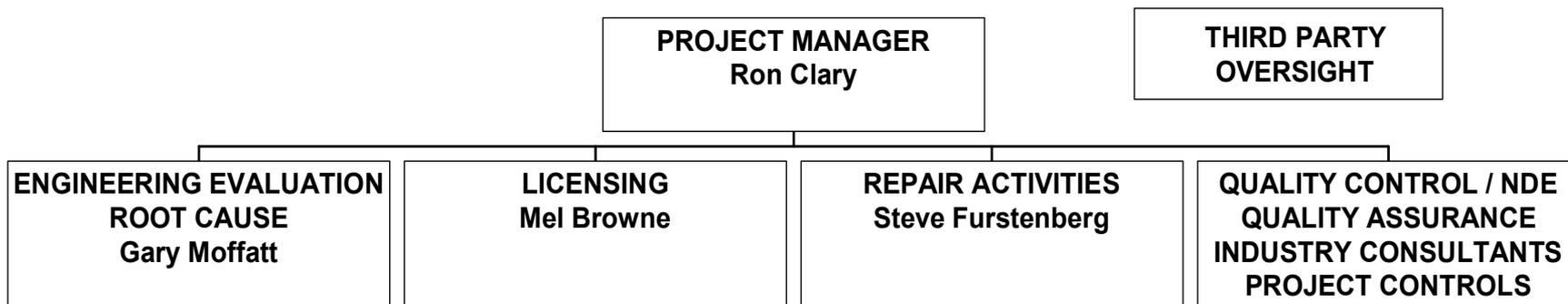


# INTRODUCTIONS

Greg Halnon  
General Manager,  
Engineering Services



## V. C. Summer Station Alpha Hot Leg Evaluation & Repair

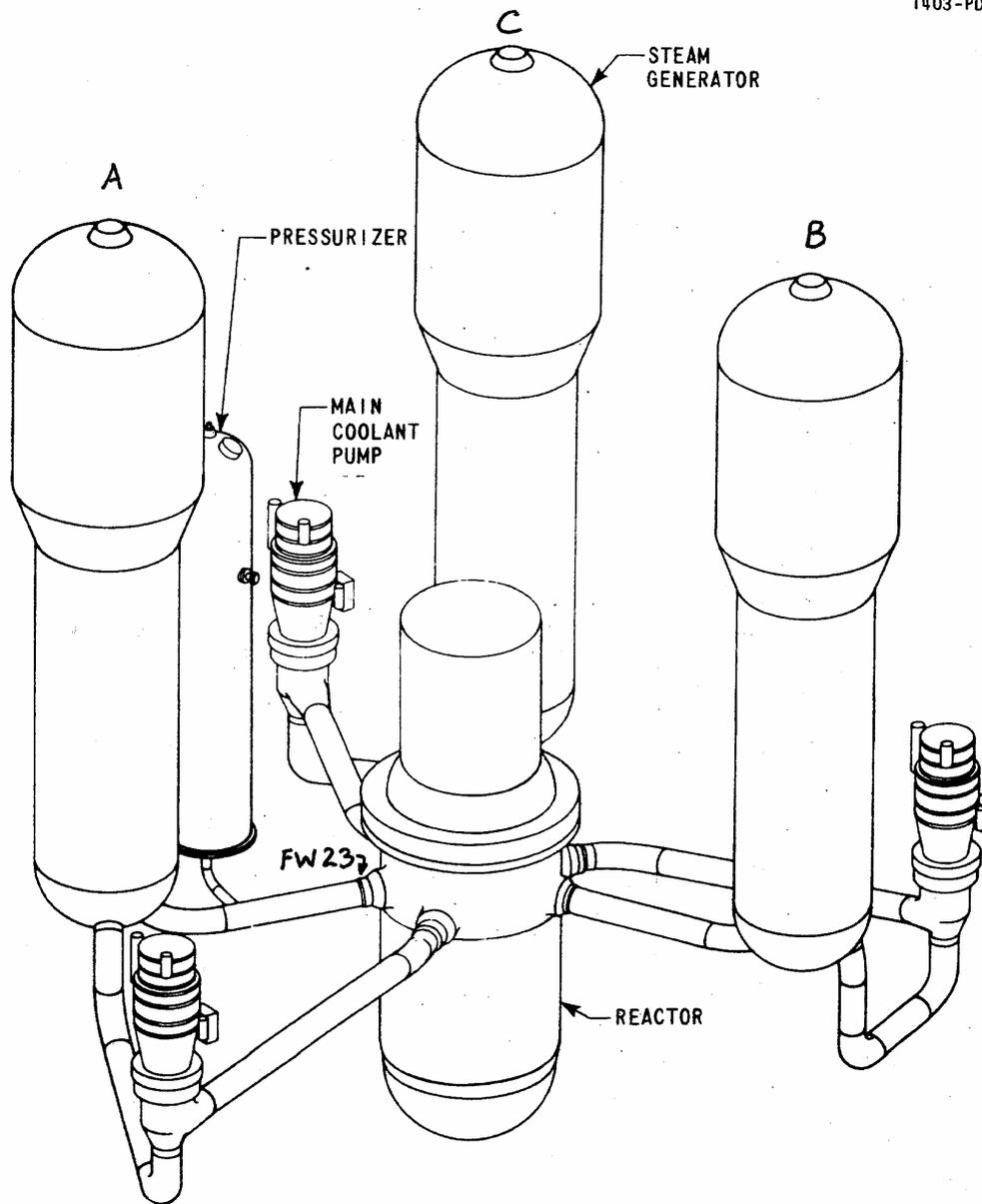


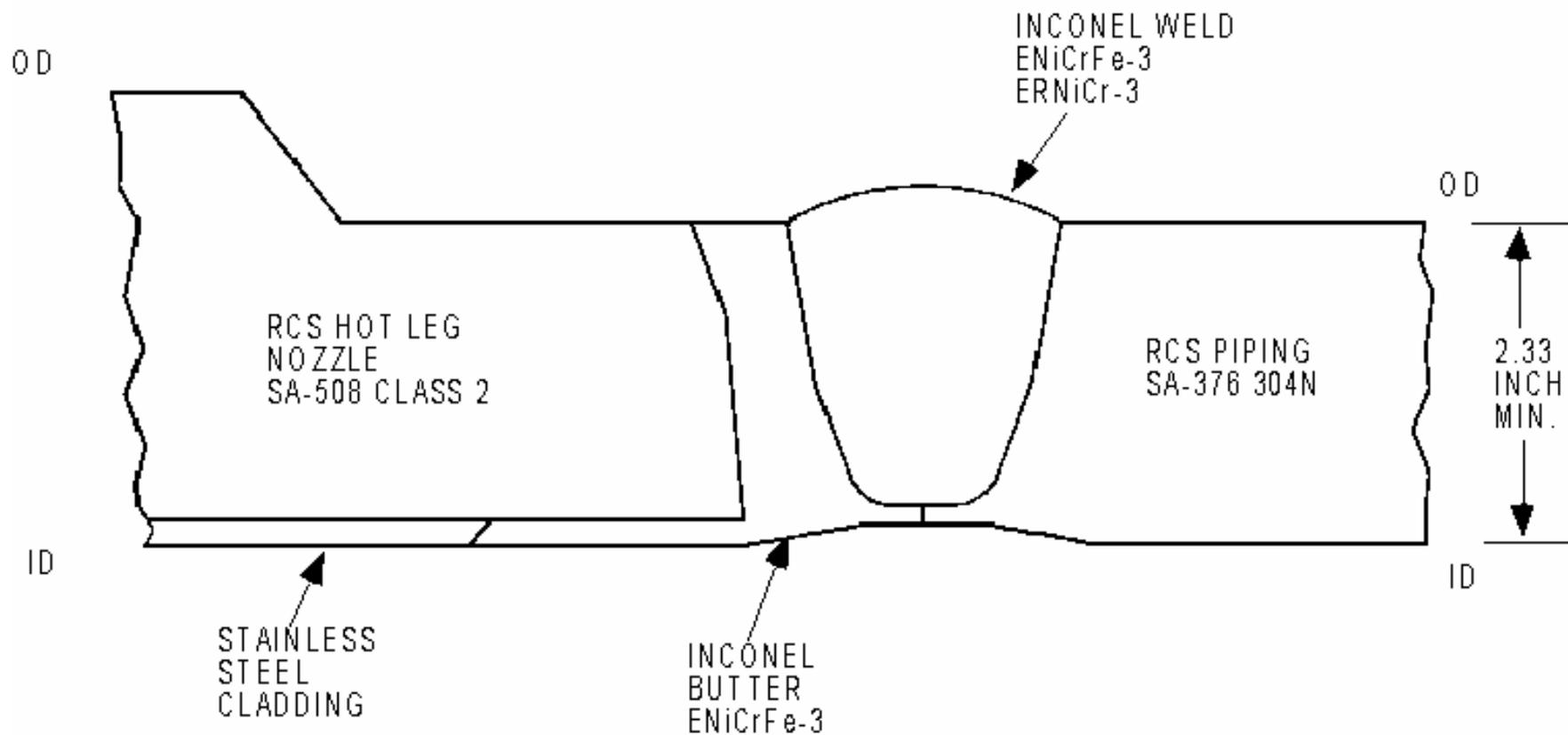
Name	Current Position	Team Role
Greg Halnon	General Manager, Engineering Services	Project Sponsor
Bob Waselus	General Manager, Strategic Planning & Development	Project Sponsor
Ron Clary	Manager, PLEX	Project Manager
Al Paglia	Supervisor, PLEX Engineering	Assistant Project Manager
Terry McAlister	Supervisor, Quality Control	Inspection Overview
Jim Callicott	Supervisor, Craft Training	Project Assistant
Tim Franchuk	Supervisor, Quality Assurance	QA Lead
Barry Mather	Quality Specialist	QC/NDE Lead
Gary Moffatt	Manager, Design Engineering	Root Cause / Engineering Evaluation Lead
Steve Furstenberg	Manager	Repair Lead
Mel Browne	Manager, Licensing	Licensing Lead
Napoleon Johnson	Senior Engineer, Outage Scheduling	Scheduling Lead
Duke Bell	Project Specialist, Engineering	Project Planning & Scheduling Lead
L. A. Blue	Manager, Health Physics	HP Lead

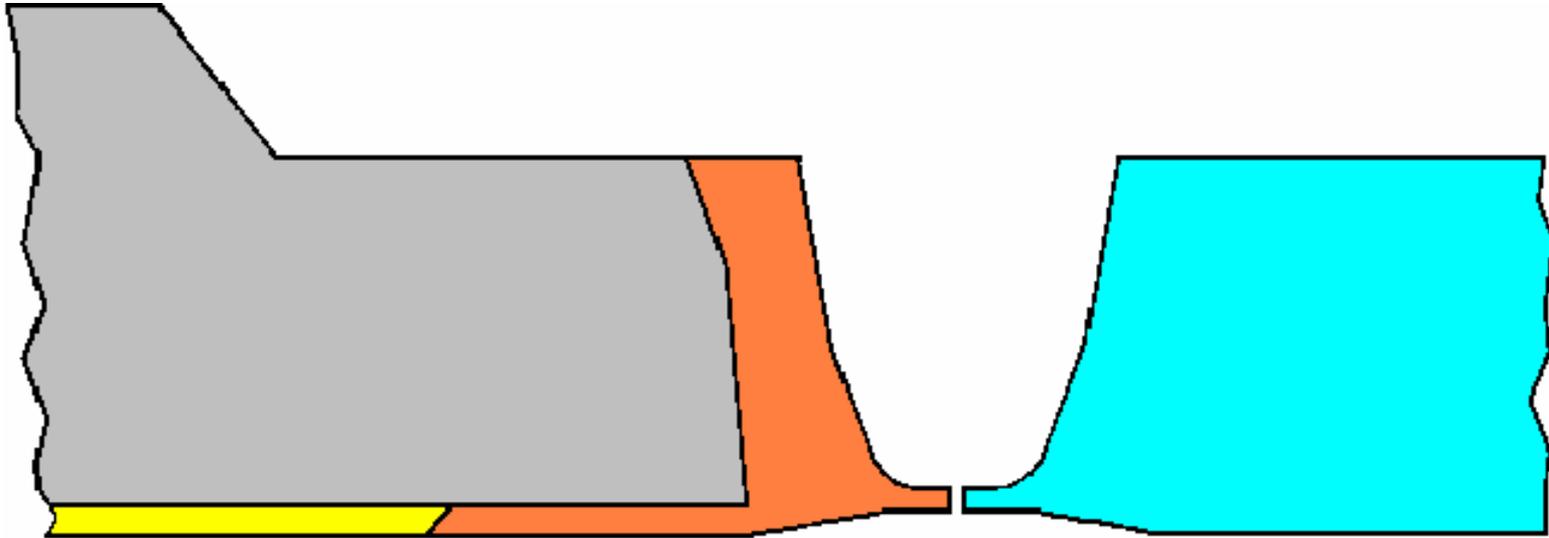


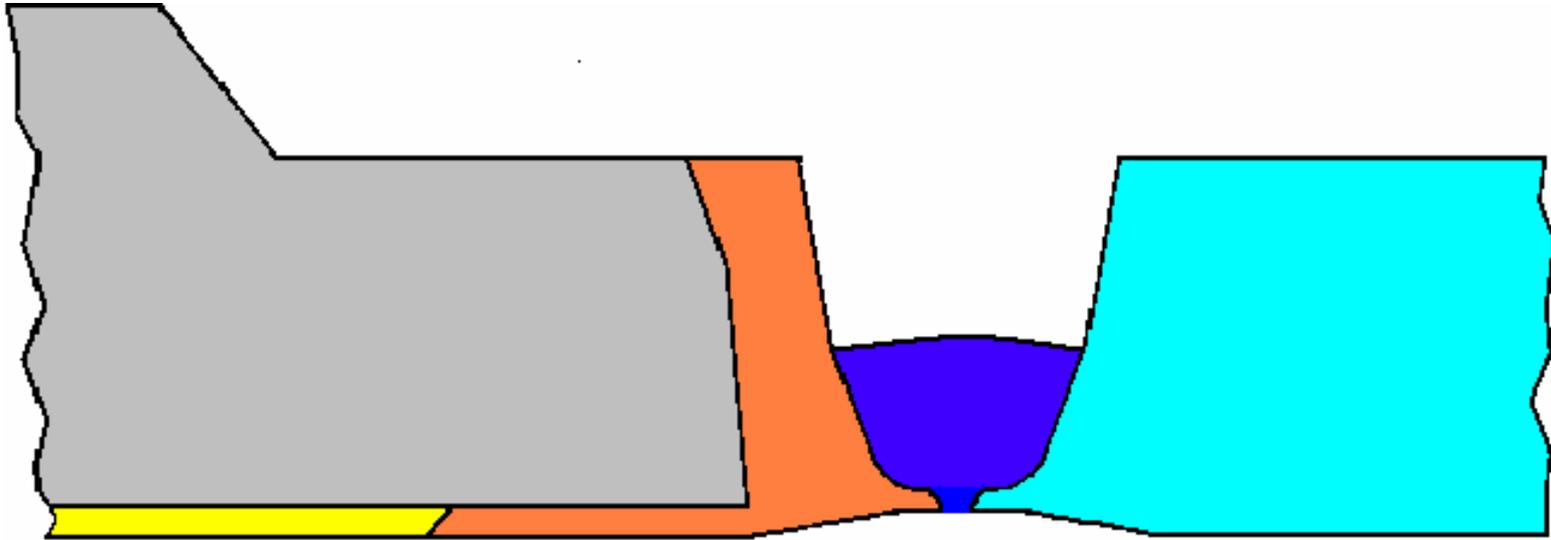
Name	Current Position	Team Role
Steve Eisenhart	PII-Vice President & Partner	Root Cause / Failure Analysis
Jack Lance	EPRI-Area Manager / Plant Technology	Materials / NDE
Mike Clary	Florida Power Corporation-Mechanical Engineer	Root Cause / Failure Analysis
Jim Derrico	G. A. Grace, Inc.-Senior Consultant	Welding / Materials
Warren Bamford	Westinghouse-Fellow Engineer	Fracture Mechanics
Gutti Rao	Westinghouse-Advanced Technical Engineer	Root Cause / Failure Analysis
Jim Munson	WesDyne-Vice President of Operations	NDE / Inspection
Clyde Cheezem	DESI-Business&Technical Support Manager	NDE / Inspection
John Marshall	PII-Consultant / Engineer	Root Cause / Failure Analysis
Steve Fyfitch	Frametone-Supervisor, Materials & Structural Analysis Unit	Root Cause / Failure Analysis

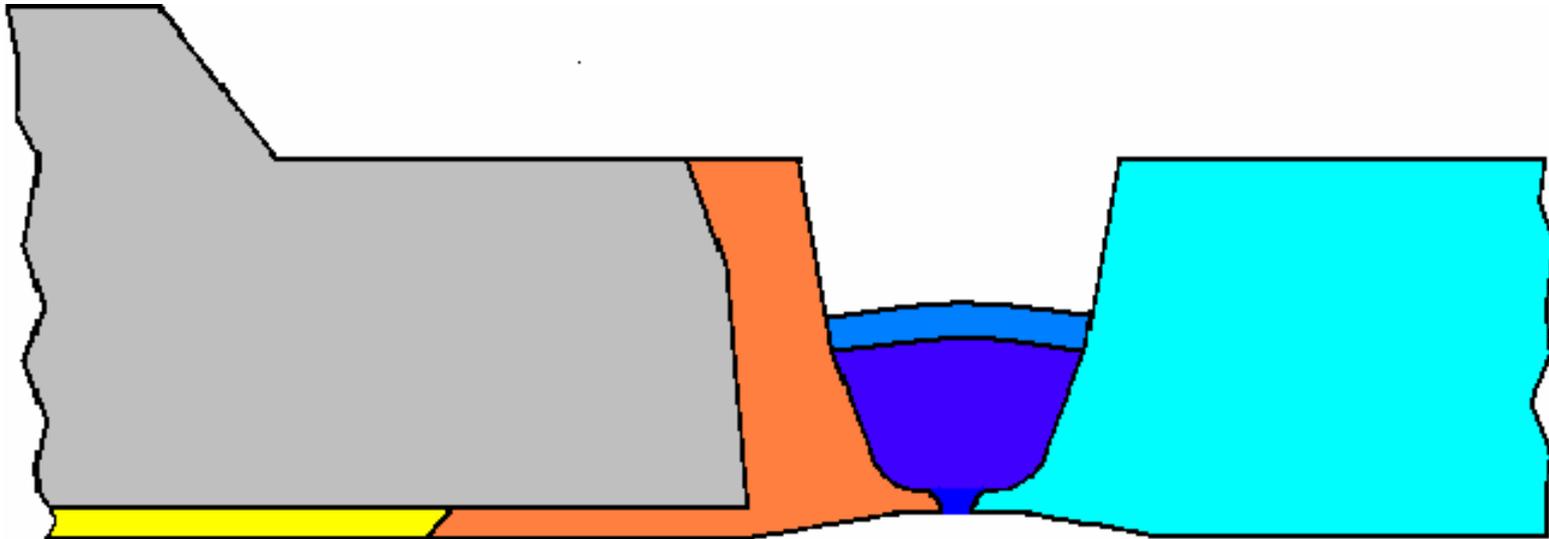


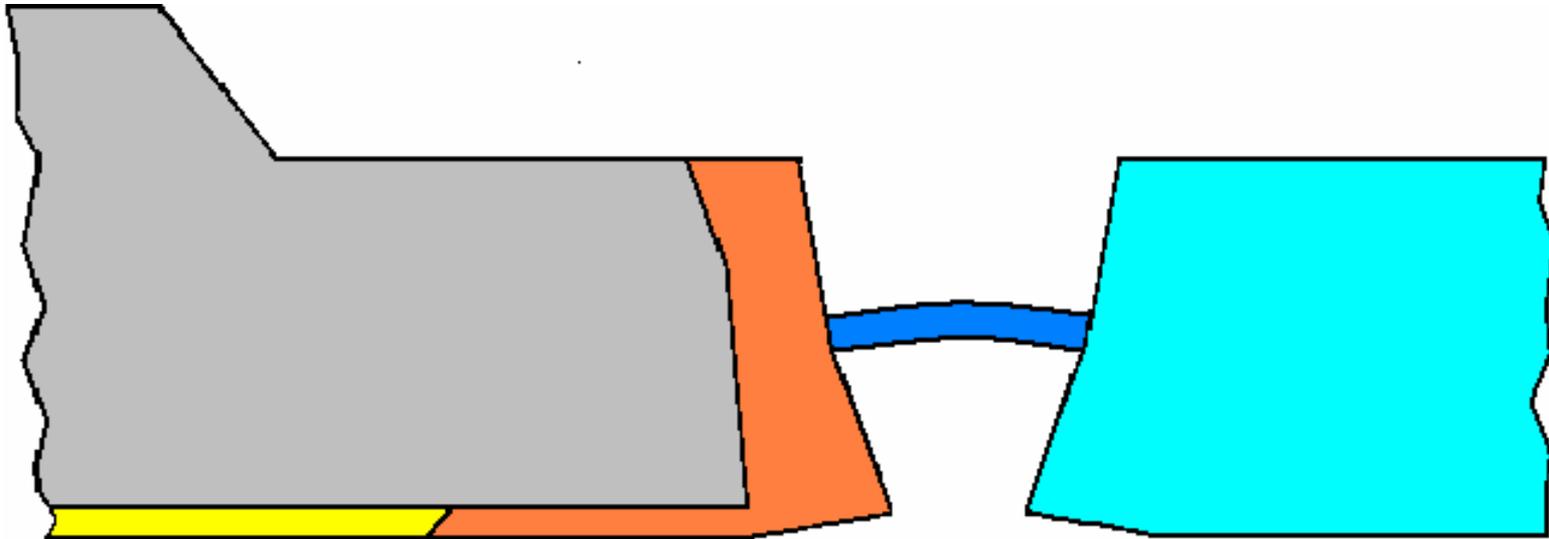


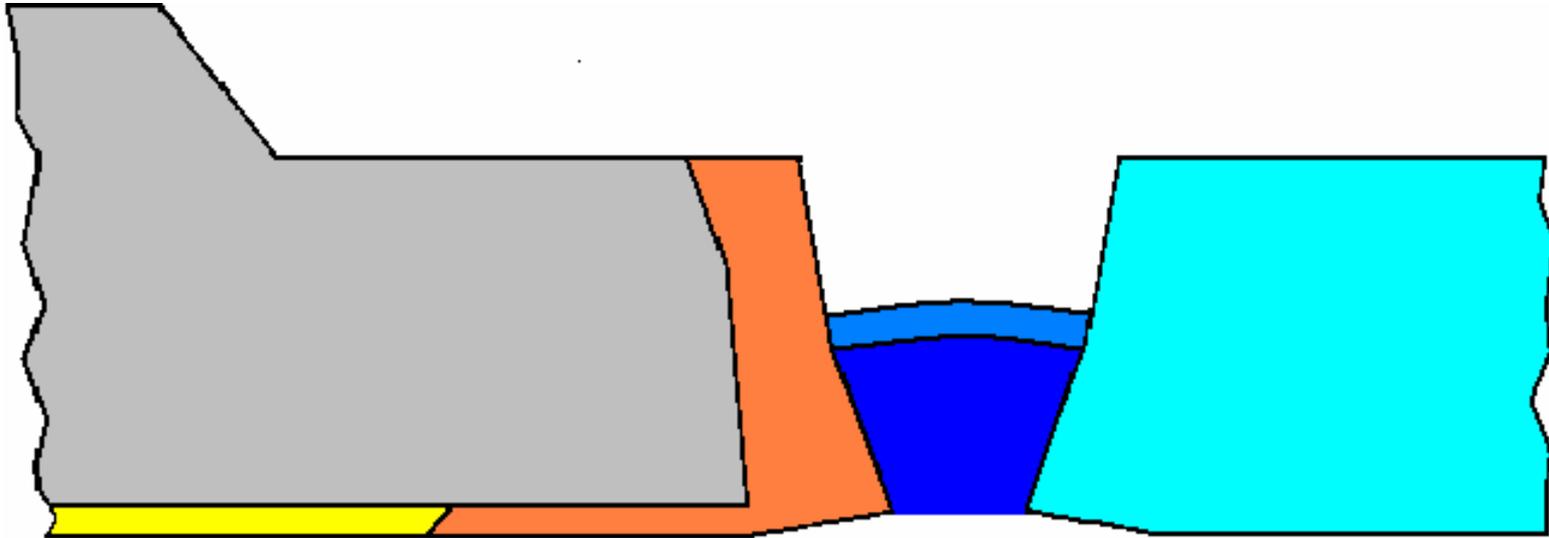


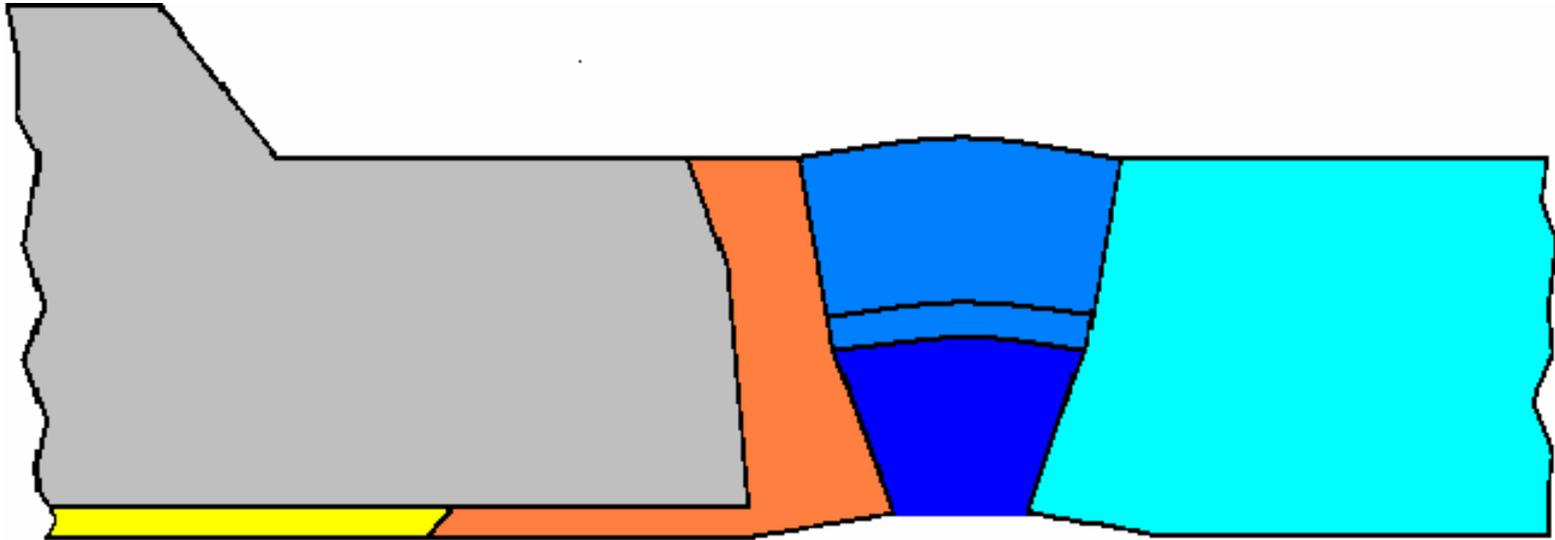


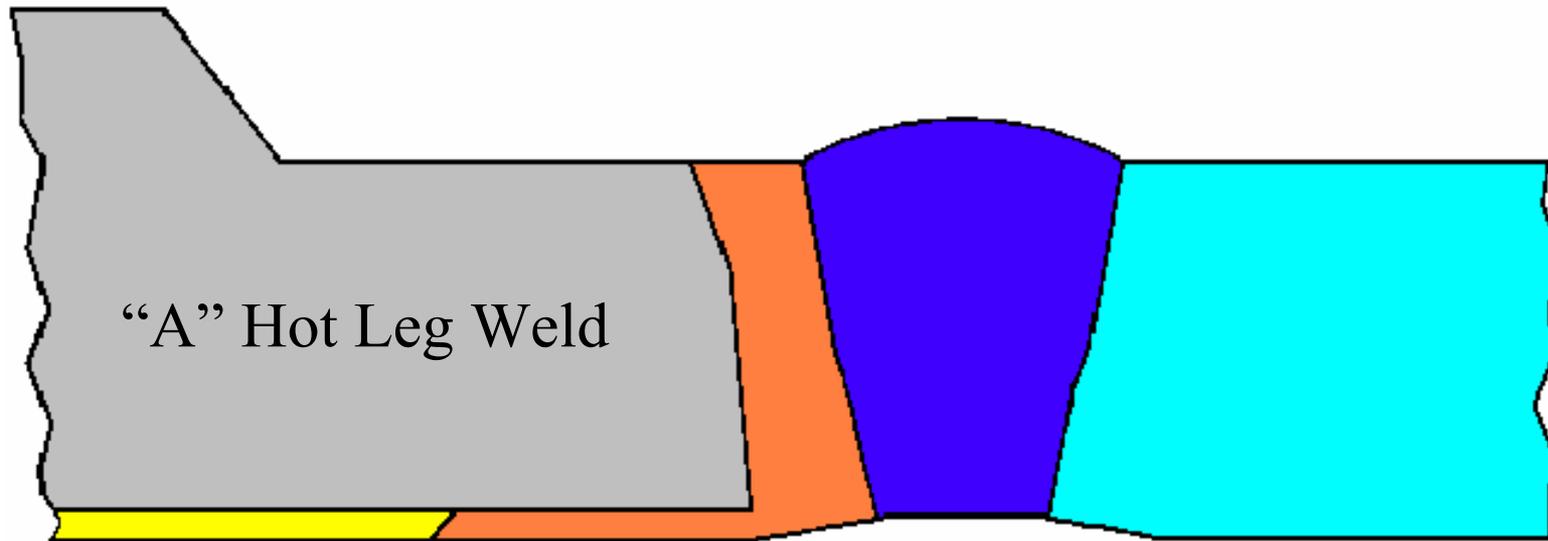
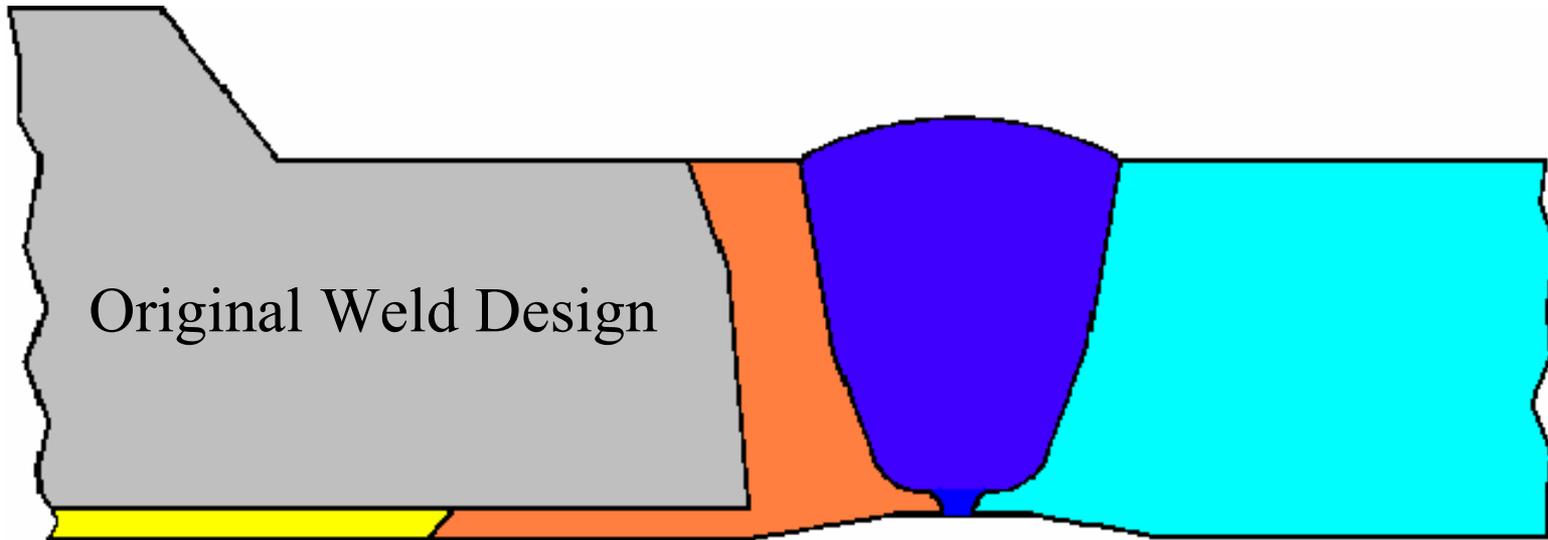




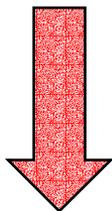








**10 yr ISI successfully  
completed**



Spring-1993

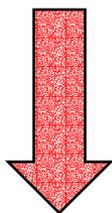
**Stm Gen replacement  
RF8**



Dec.-1994

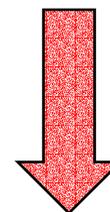


**RF12 Starts**



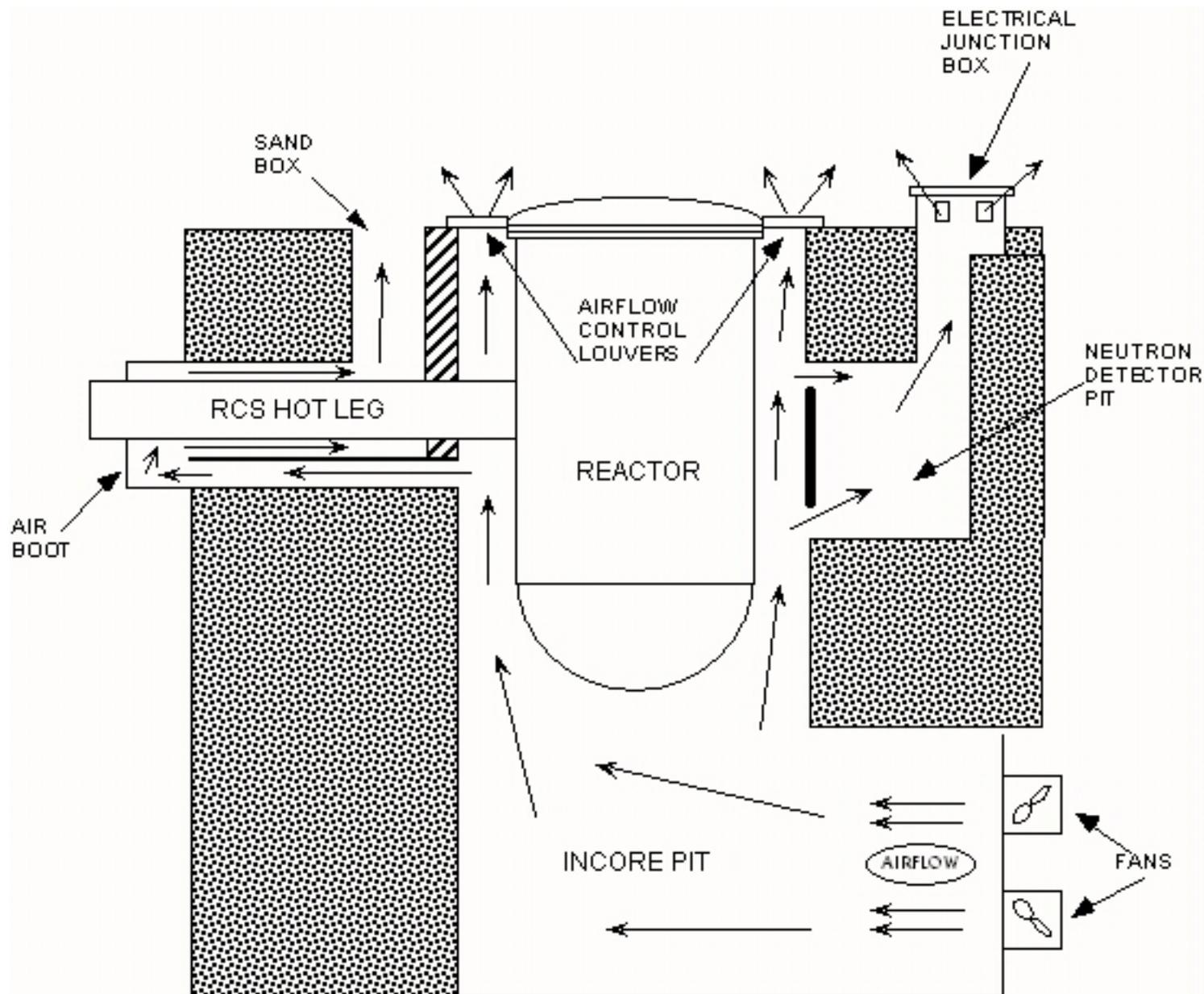
Oct. 7, 2000

**Routine boron  
inspections  
find boron in  
unexpected areas**



Oct.7, 2000









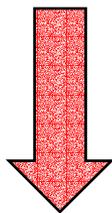






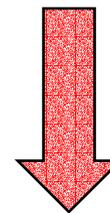


**4 hour NRC  
report filed**



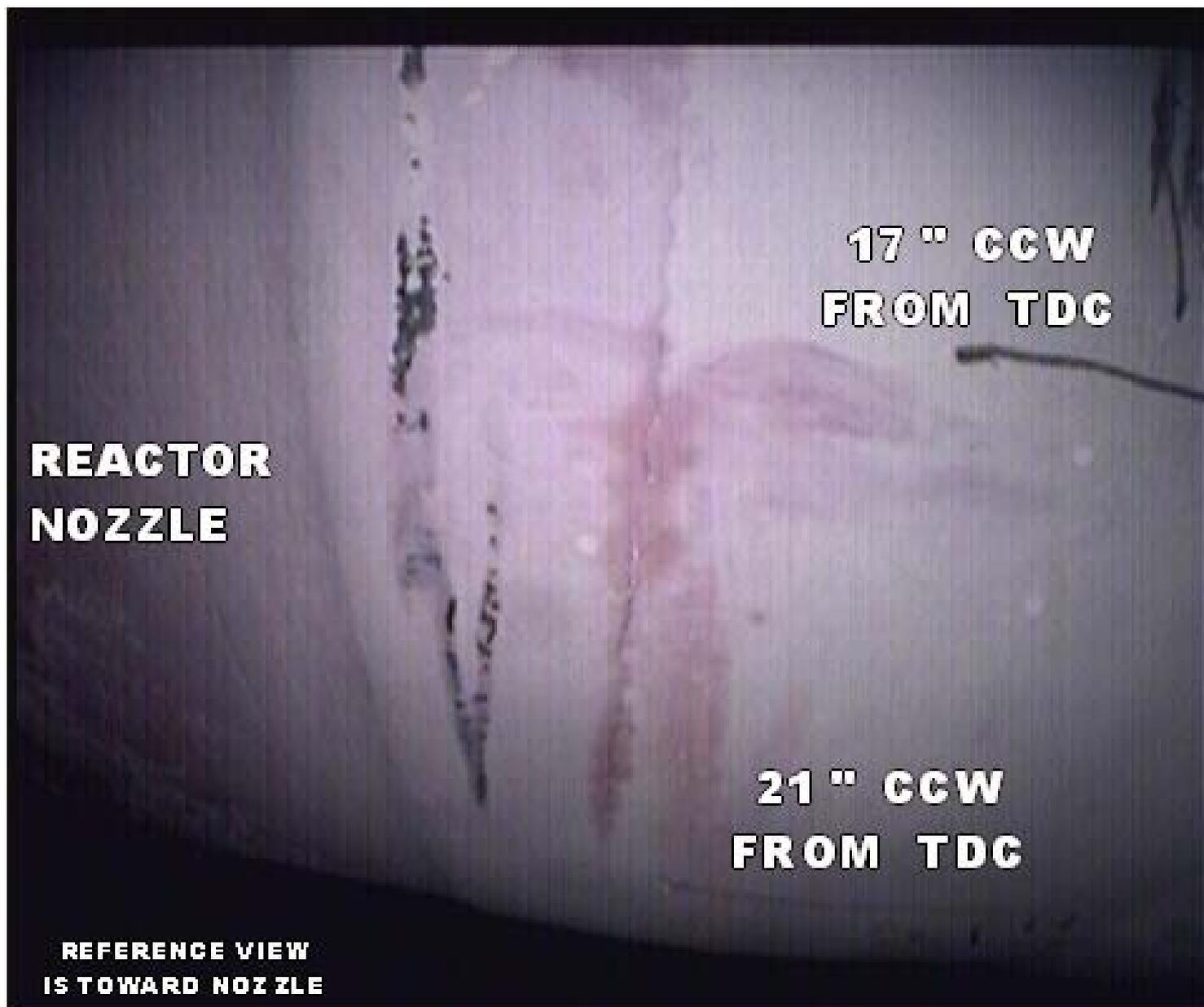
**Oct 12,2000**

**Visual examination  
finds crack.  
Confirmed by partial  
PT**

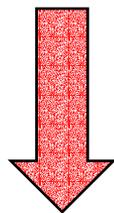


**Oct 12,2000**



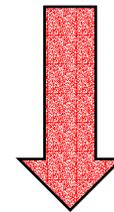


**Confirmatory NRC  
report filed**



Oct 12,2000

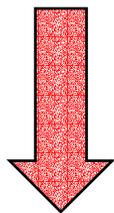
**SCE&G team  
established**



Oct 12,2000

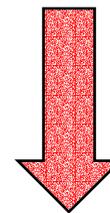


**External team  
contacts made and  
NRC conference call  
held.**



**Oct 13,2000**

**ALERT team  
(including industry  
experts) meet on site**



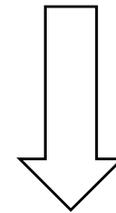
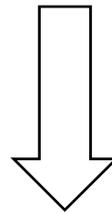
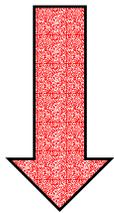
**Oct 16,2000**



**“A” Loop ID  
video & UT  
Preparations**

“A” Loop UT &  
Replication sampling

“B” & “C” Loop  
ID video



Oct. 18,2000

Oct.19,2000

Oct.19,2000



Alpha Loop Weld



# Alpha Loop Weld





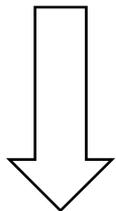




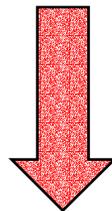
“A” Loop ID  
video & UT  
Preparations

**“A” Loop UT &  
Replication sampling**

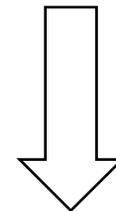
“B” & “C” Loop  
ID video



Oct. 18,2000



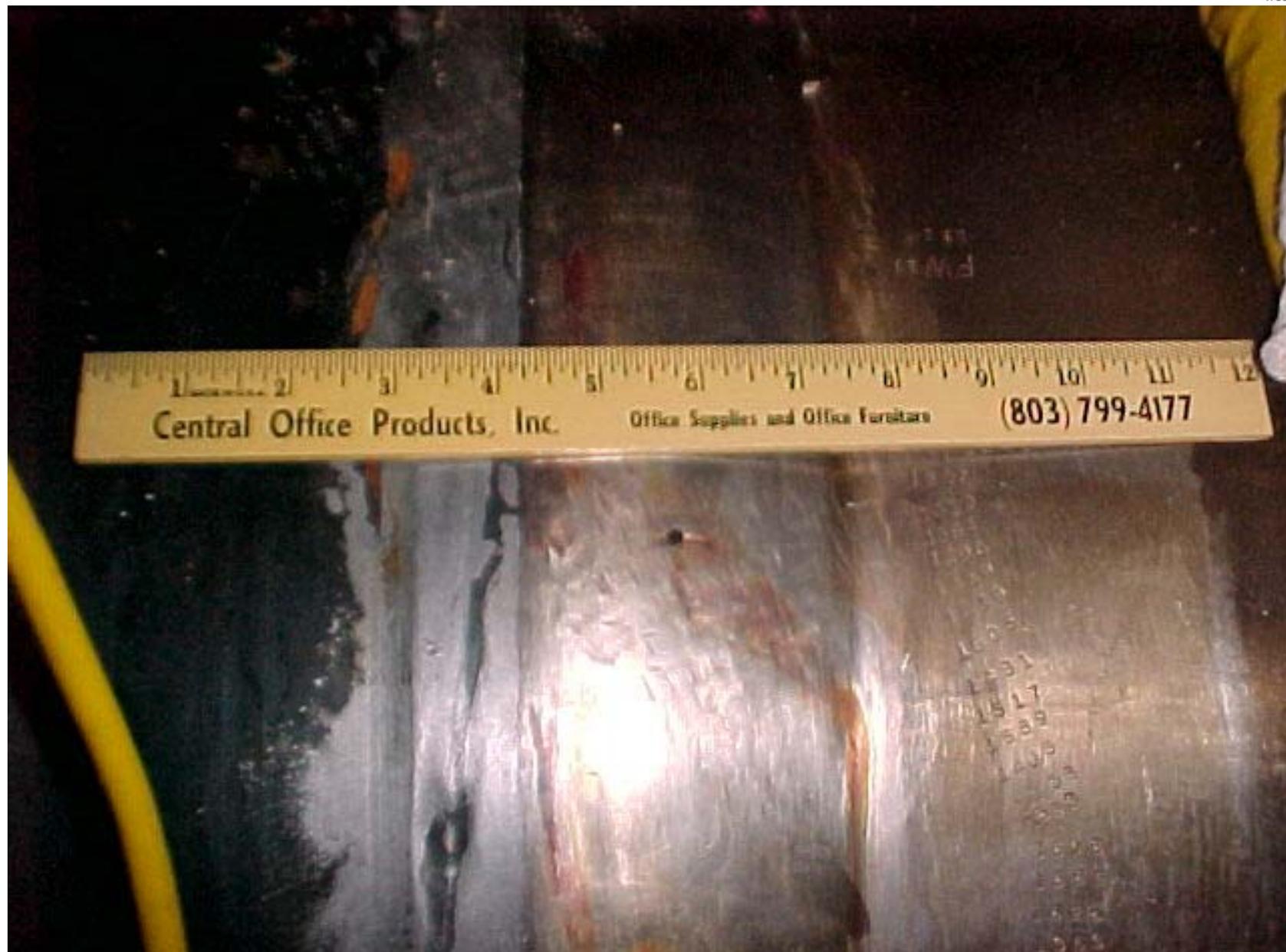
Oct.19,2000



Oct.19,2000



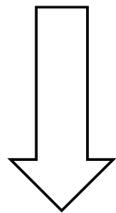




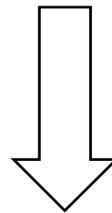
“A” Loop ID  
video & UT  
Preparations

“A” Loop UT &  
Replication sampling

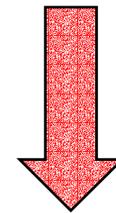
**“B” & “C” Loop  
ID video**



Oct. 18,2000



Oct.19,2000

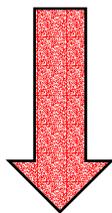


Oct.19,2000



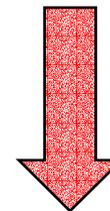


**Second NRC  
conference call**



Oct.20,2000

**Repair strategy  
decision made**



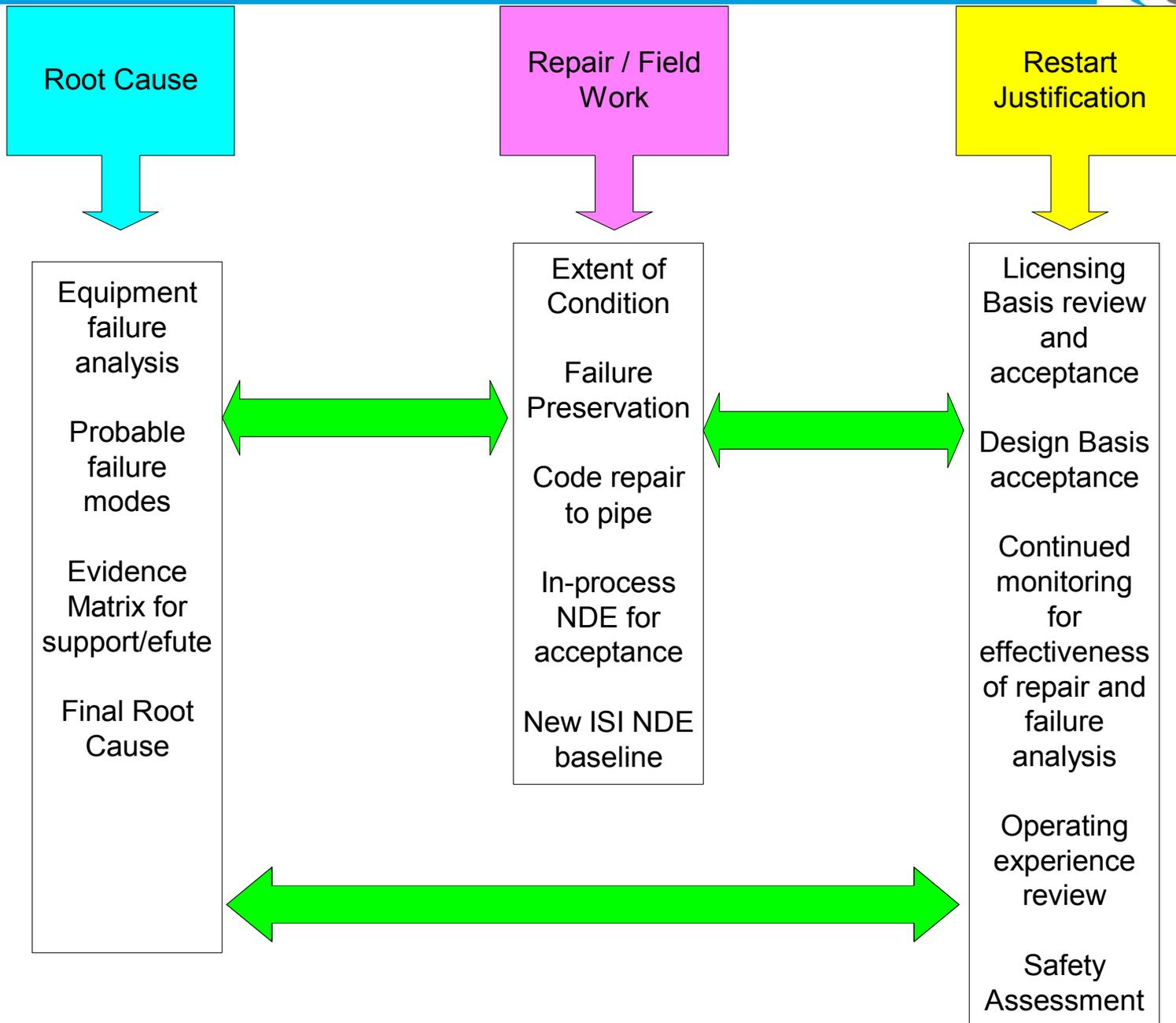
Oct.20,2000



# Integrated Strategy

- Three Key Areas of Resolution
  - Failure Analysis
  - Repair
  - Restart Justification





# End Point of This Effort

- Conclusion will be:
  - “A” Hot Leg is unique OR
  - Commonalties are addressed in other welds
- Plant will be safe for start up through:
  - Pipe and weld(s) meet code requirements
  - Repair will bound probable failure scenarios



# Summary

- Industry experts to augment VCSNS staff
- 3rd party reviews to ensure:
  - Comprehensive strategy
  - Technical Adequacy
  - Regulatory Compliance
- Failure will be understood and resolved prior to restart
  - Safety foremost
  - Actions to prevent recurrence
  - Extent of conditions addressed

